Express Mail N . EV 335856953 US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of: Xu et al.

Confirmation No.: 5438

Application No.: 09/763,334

Group Art Unit: 1646

Filed: August 6, 2001

Examiner: Chen, Shin-Lin

Tom TDD

TREATMENT AND PREVENTION OF

Attorney Docket No.: 6523-020

CANCER AND PITUITARY

DISORDERS WITH LATS PROTEINS, DERIVATIVES AND FRAGMENTS, AND LATS KNOCK-OUT ANIMAL

MODELS

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.56 AND §1.97

OFFICIAL

COMMISSIONER FOR PATENTS PO BOX 1450 Alexandria, Virginia 22313-1450 RECEIVED CENTRAL FAX CENTER

OCT 2 7 2003

Sir:

Applicants respectfully request that the Examiner review the foregoing references and that the references be made of record in the file history of the application.

TO 17038729306

Since this Information Disclosure Statement is being filed before the mailing of a first Office Action on the merits, Applicants believe that no fee is due in connection with its filing. However, should the Patent Office determine otherwise, please charge the required fee to Pennie & Edmonds LLP Deposit Account No. 16-1150.

Respectfully submitted,

Date: July 23, 2003

(Reg. No.)

46,616

(Reg. No.)

PENNIE & EDMONDS LLP

1155 Avenue of the Americas New York, New York 10036-2711

(212) 790-9090

Enclosures

RECEIVED CENTRAL FAX CENTER

OCT 2 7 2003

		1		·	• •		
	***************************************				6523-020-999		09/763,334
	LIST	OF REFERENCES	· Y APPLICANT	APPLICANT Xu et al.			
	•	(Use several sh	eets if neces	sary)	FILING DATE August 6, 2001		GROUP 1646
	•		TIC D	ATENT DOCUMENTS	<u> </u>	,	
XAMINER		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLA	FILING DATE IF APPROPRIATE
DITIAL	AA	08/939,106	-	Xu et al.		33	11/26/97
	AB	09/442,102	 -	Xu et al.			11/17/99
	AC	60/096,996		Xu et al.		 	8/18/98
	AD	60/096,997		Xu et al.		1.	8/18/98
	ΑE	5,001,225	3/19/91	Taylor, DW			
	AF	5,573,924	11/12/96	Beckmann et al.			
:	AG	5,994,503	11/30/99	Xu et al.			
	АН	6,054,633	4/25/00	Tischfield et al.			
	AI	6,359,193	3/19/02	Xu et al.		<u> </u>	
			FOREIC	ON PATENT DOCUMENT	S		
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCL ASS	TRANSLATION
	A.J	WO 00/10602	03/02/00	PCT			YES NO
	AK	WO 99/37787	07/29/99	PCT			
•	AL	WO 96/30402	10/03/96	PCT			
	AM	WO 95/31722	11/23/95	PCT			
	AN	WO 92/19625	11/92	PCT			
•	AO	WO 92/10571	6/92	PCT			
	AP	BP 0 169 672	1/29/86	EPC			
		OTHER REFEI	RENCES (A	ncluding Author, Title, Date,	Pertinent Pages, E	Etc.)	
	AQ	1		tibodies. Hum Cell., 1(1):46-53			
	AR	Res. 841(1-2):123-34.		logical characterisation of the der		•	
	AS	Review		f tyrosine kinases in the treatmen			
	AT	Betz et al., 1996, Bypa 6(10):1307-16		with mosaic mice generated by C			
	AU	3:1273-1287		m and mutation in the Drosophil	a genome with a P-lac	cZ vector,	Genes Dev.
•	AV			oncogenesis, Cell 64:235-248			
	AW	Boedigheimer et al., 19 NF2 tumor suppressor		d, a negative regulator of cell pro v. 44:83-84	liferation in Drosophi	ila, shows	homology to the
	AX	Boedigheimer and Lau Development 118:129	ighton, 1993,	Expanded: a gene involved in th	e control of cell prolif	feration in	imaginal discs,
	AY	Bowie et al. 1990, Dec 247(4948):1306-10.	iphering the r	nessage in protein sequences: tole	erance to amino acid s	ubstitutio	ns. Science.
	AZ	Brook et al., 1992, Mouranscript encoding a	rotein kinase	of myotonic dystrophy: expansion family member, Cell 68:799-808	<u></u>		
	BA	Bryant, 1987, Expering Genetic Regulation of	nental and ger Development	netic analysis of growth and cell p , A.R. Liss, NY, pp. 339-372	proliferation in <i>Drosop</i>		inal discs, in
	RR	Bruant 1993 Towner	is the cellular	functions of turnor suppressors	Trends Cell Biol 3:3	1-35	

	BC)	Burgess et al. 1990, rossible dissociation of the heparin-binding and mitogenic activities of heparin-binding (acidic
		fibroblast) growth factor-1 from its receptor-binding activities by site-directed mutagenesis of a single lysine residue. J Cell Biol. 111(5 Pt 1):2129-38
	BD	Capecchi, 1989, Altering the genome by homologous recombination, Science 244:1288-1292
	BE	Curti BD., 1993, Physical barriers to drug delivery in tumors. Crit Rev Oncol Hernatol. 14(1):29-39. Review
	BF	DePlaen et al., 1994, Structure, chromosomal localization, and expression of 12 genes f the MAGE family. Immunogenetics. 1994;40(5):360-9
	BG	Dietrich et al., 2000, Conditional mutagenesis in mice with heat shock promoter-driven cre transgenes. Manum Genome. 11(3):196-205.
<u> </u>	BH	Dorrington et al. 1965, Immnological studies on the long-acting thyroid stimulator. Clinical Science, 28:165-174
<u> </u>	BI	Dymecki et al., 1998, Using Fip-recombinase to characterize expansion of Wnt1-expressing neural progenitors in the
<u></u>	ВЈ	mouse. Dev Biol. 201(1):57-65 Ebert et al., 1988, A Moloney MLV-rat somatotropin fusion gene produces biologically active somatotropin in a
 _	BK	transgenic pig. Mol Endocrinol. 2(3):277-83 Fearon and Vogelstein, 1990, A genetic model for colorectal tumorigenesis, Cell 61:759-767
	BL	Peatherstone and Russell, 1991, Fission yeast p107 mitotic inhibitor is a tyrosine/serine kinase, Nature 349:808-81
	ļ.,	Fiering et al., 1993, An in-out strategy using gene targeting and FLP recombinase for the functional dissection of
	BM	complex DNA regulatory elements: analysis of the \$\beta\$-globin locus control region, Proc. Natl. Acad. Sci. USA 90:8469
	BN	Fortini et al., 1991, The Drosophila zfh-1 and zfh-2 genes encode novel proteins containing both zinc-finger and homeodomein matifs. Mechan Dev. 34:113-122
	во	Fu et al., 1993, Decreased expression of myotonin-protein kinase messenger RNA and protein in adult form of myoton dystrophy. Science 260:235-238
	BP	Galsworthy, 1966, Biochemical aspects of temperature sensitivity in neurospora, Diss. Abstr. 26:6348
4	BQ	Gateff and Mechler, 1989, Turnor-suppressor genes of Drosophila melanogaster, CRC Crit. Rev. Oncogen 1:221-245
	BR	Gateff, 1978, Malignant neoplasms of genetic origin in Drosophila melanogaster, Science 200:1448-1459
	BS	Gibco BRL Catalogue and Reference Guide, 1992, pp.296
	BT	Golic, 1991, Site-specific recombination between homologous chromosomes in <i>Drosophtla</i> , Science 252:958-961
	BU	Golic and Lindquist, 1989, The FLP recombinase of yeast catalyzes site-specific recombination in the Drosophila
·	BV	genome, Cell 59:499-509 Gura T., 1997, Systems for identifying new drugs are often faulty. Science. 278(5340):1041-2
		Hammer et al., 1990, Spontaneous inflammatory disease in transgenic rats expressing HLA-B27 and human beta 2m:
·	BW	enimal model of HLA-B27-associated human disorders. Cell. 63(5):1099-112
· · · · · · · · · · · · · · · · · · ·	BY	Science 241:42-52
	P.	Acad. Sci. USA 91;6824-6829
	BZ	Hopp T.P. & Woods K.R. 1981, Prediction of protein antigenic determinants from amino acid sequences, Immunol. 78(6):3824-3828
•	CA	Houdebine I.M., 1994, Production of pharmaceutical proteins from transgenic animals. J Biotechnol. 34(3):269-87. Review
	СВ	Hubbard K. & Ozer H.L., 1995, Senescence and immortalization of human cells, in Cell Growth and Apoptosis ed. Studzinski G.P., ch.12, pp229-249
	CC	4 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
	CD	Jacob et al., 1987, Structure of the I(2)gl gene of Drosophila and delimitation of its turnor suppressor domain, Cell 50:215-225
	CB	Jain RK., 1994, Barriers to drug delivery in solid tumors. Sci Am. 271(1):58-65. Review
	CF	Johnston et al., 1990, The product of the Saccharomyces cerevisiae cell cycle gene DBF2 has homology with protein kinases and is periodically expressed in the cell cycle, Mol. Cell. Biol. 10(4):1358-1366
	ÇG	Johnston and Thomas, 1982, The isolation of new DNA synthesis mutants in the beast Saccharomyces cerevisiae, M. Gen. Genet. 186:439-444
	CH	
	CI	Justice et al., 1995, The drosophila tumor suppressor gene warts encodes a homologue of human myotonic dystrophy kinascand is required for control of cell shape and proliferation, Genes Dev. 9:534-546
	टा	Kappel et al., 1992, Regulating gene expression in transgenic animals. Curr Opin Biotechnol. 3(5):548-53. Review
	CK	Karpen and Spradling, 1992, Analysis of subtelomeric heterochromatin in the Drosophila minichromosome Dp1187 single P element insertional mutagenesis, Genetics 132:737-753
	CL	
	СМ	T T T T T T T T T T T T T T T T T T T
	CN	
	СО	

		Genet. 2(3):299-304
	CQ	Mahoney et al., 1991, The fat tumor suppressor gene in Drosophila encodes a novel member of the cautierin gene
	On I	Mansfield et al., 1994, Genetic and molecular analysis of hyperplastic discs, a gene whose product is required for regulation of cell proliferation in <i>Drosophila melanogaster</i> imaginal discs and germ cells, Dev. Biol. 165:507-526
	CS	McCormick, 1994. Activators and effectors of ras p21 proteins, Current Opinion in Generics & Development 4.71-70.
	CT	McDonald ID., 1995, Using high-efficiency mouse germline mutagenesis to investigate complex biological phenomena: genetic diseases, behavior, and development. Proc Soc Exp Biol Med. 209(4):303-8. Review
	cu	Mederna et al., 1993, The role of p21res in receptor tyrosme kinase signaling, Critical Reviews in Oncogenesis 4(0).013-
	ÇV	61. Mitchell and Mitchell, 1954, A partial map of linkage group D in neurospora crassa, Proc. Natl. Acad. Sci. USA
	cw	40:436-440 Moreadith et al., 1997 Gene targeting in embryonic stem cells: the new physiology and metabolism. J Mol Med.
	СХ	75(3):208-16. Review Mullins et al., 1996, Perspectives Series: Molecular medicine in genetically engineered animals. Transgenesis in the rat
	CY	and larger manumals. J. Clin. Invest. 98:S37-S40. Mullins et al., 1990, Fulminant hypertension in transgenic rats harbouring the mouse Ren-2 gene. Nature.
	CZ	344(6266):541-4 Mullins et al., 1989, Expression of the DBA/2J Ren-2 gene in the adrenal gland of transgenic mice. EMBO J.
	DA	8(13):4065-72 Ollmann et al., 2000, Drosophila p53 is a structural and functional homolog of the tumor suppressor p53, Cell
	DB	101(1):91-101 Ponder, 1990, Inherited predisposition to cancer, Trends Genet. 6(7):213-218
	DB	Ren et al., 1993, Identification of a ten-amino acid proline-rich SH3 binding site, Science 259:1157-1161
<u> </u>	ממ	Robertson et al., 1988, A stable genomic source of P element transposase in Drosophila melanogaster, Genetics
·	DE	118:461-470 Rooke et al. 1994 Molecular and genetic characterization of a novel gene which plays an essential role during bristle
*	DF	and photoreceptor development, EMBL Intl. Conf. on Drosophila Development, Crete, Greece, June 19-23, 1994 Rudinger J., 1976. Characteristics of the amino acids as components of a peptide hormone sequence, in Peptide
<u>.</u>	DG	Hormones, ed. J.A Parsons, University Park Press, Baltimore pp1-7 Russell and Nurse, 1987, Negative regulation of mitosis by wee1, a gene encoding a protein kinase homolog, Cell
	ححدا	49:559-567 Sanders P.G., 1990, Protein production by genetically engineered mammalian cell lines, Animal Cell Biotech. 4:15-70
	DH	Sanders P.G., 1990, Protein production by generically engineered maintains tent lines, Annual Cod Blooms 70 Sanger et al., 1977, DNA sequencing with chain-terminating inhibitors, Proc. Natl. Acad. Sci. USA 74(12):5463-5467
· · · ·	DI	Sanger et al., 1977, DNA sequencing with chain-terminating inhibitors, Pice. Natl. Acad. Sci. CSA 74(12):355-355. Sauer and Henderson, 1988, Site-specific DNA recombination in mammalian cells by the Cre recombinase of
	Dì	bacteriophage P1, Proc. Natl. Acad. Sci. USA 85:5166-5170 Schon MP., 1999, Animal models of psoriasis - what can we learn from them? J Invest Dermatol. 112(4):405-10.
	DK	Review
	DL	Seamark RF., 1994, Progress and emerging problems in livestock transgenesis: a summary perspective. Reprod Fertil Dev. 6(5):653-7. Review
	DM	Chem 266(19):12474-12480
	DN	Sigmund CD., 2000, Viewpoint: are studies in genetically altered mice out of control? Arterioscler Thromb Vasc Biol
	DO	St. John et al., 1999, Mice deficient of Lats I develop soft-tissue sarcomas, ovarian tumors and pituitary dysfunction,
	.DP	The state of the s
	DQ	The state of the s
	DR	1 A A A A A A A A A A A A A A A A A A A
<u></u>	DS	Tao et al., 1999, Human homologue of the Drosophila melanogaster lats tumour suppressor modulates CDC2 activity
•	D7	Nature Genetics, 21:177-81 Taurog et al., 1988, HLA-B27 in inbred and non-inbred transgenic mice. Cell surface expression and recognition as an
	DU	alloantigen in the absence of human beta 2-microglobulin. J Immunol. 141(11):4020-3 Thummel and Pirrotta, 1992, New pCaSpeR P element vectors, Dros. Inf. Svc. 71:150
	ים ל	7. 100 044 077
	DV	Török et al., 1993, P-lacW insertional mutagenesis on the second chromosome of Drosophila melanogaster: isolation
<u> </u>	D	
	D'	anaphase cell cycle transition, EMBO J. 13(5):1103-1113 Toyn et al., 1991, The cell-cycle-regulated budding yeast gene DBF2, encoding a putative protein kinase, has a homo
	D	
	E	54(20):5301-9. Review.
	•	/03 4:39:38 PM [Eastern Standard Time]

•		\					
	BB	Wall, RJ., 1996, Trausgenic Livestock: Progress and pro	spects for the finare. Theriogenology 45:57-68				
	EC	West at al. 1004 Ydentification and characterization of	tumor suppressor genes in Drosophila, EMBL Intl. Conf. on				
] -	EC	- 10 m 4 . C-cock Tune 10-75 19	94				
	ED	Wetcon et al. 1004 Prosembile in cancer research; the	first fifty tumor suppressor genes. J Cell Sci Suppl. 18:19-33.				
	ן עפ						
	BE	Wetcon et al 1992 Prosophila homolog of the human	S6 ribosomal protein is required for tumor suppression in the				
	ישנ	hematonoietic system. Proc. Natl. Acad. Sci. USA 89:11302-11306					
	EF	Weinberg, 1991, Tumor suppressor genes, Science 254	1:1138-1146				
			· ·				
	EG	Wharton et al., 1985, opa: a novel family of transcribe	d repeats shared by the Notch locus and other developmentally				
1	•••	1 1.4 3 F: :- To manifer managed Coll 40*55=67					
	EH	Woods and Bryant, 1993, ZO-1, DlgA and PSD-95/SA	P90: homologous proteins in tight, septate and synaptic cell				
1		1 4 3 faction Tone 44.85.80					
	essor gene of Drosophila encodes a guanylate kinase homolog						
		111!3 -44-4- iumotions Cell 66:451-464					
	EJ Woods and Bryant, 1989, Molecular cloning of the lethal(1)Discs large-I oncogene of Drosophila, Dev I						
		235 Development 117:1223					
1	EK	Xu and Rubin, 1993, Analysis of genetic mosaics in developing and adult Drosophila tissues, Development 117:1223-					
		1237	tic mosaics: the Drosophila lats gene encodes a putative protein				
Į.	EL						
	EM	kinase, Dev. 121:1053-1063 1 Xu and Harrison, 1994, Mosaic analysis using FLP recombinase, Meth. Cell Biol. 44:655-682					
		Au and rial tool, 1994, Woodle Chapter o lower inte	meeting with the neurogenic penes Notch. Delta and mastermind in				
]	EN Xu and Artavanis-Tsakonas, 1990, deltex, a locus interacting with the neurogenic genes, Notch, Delta and ma						
		Drosophila melanogaster, Genetics 126:665-677 Yang et al. 2001, Human homologue of Drosophila lats, LATS1, negatively regulate growth by inducing G(2)/M arrest of					
	EO	20/45):6516-23					
		apoptosis. Oncogene. 20(45):6516-23 Yarden et al., 1992, cot-1, a gene required for hyphal elongation in Neurospora crassa, encodes a protein kinase, EMBO					
	EP	- T 11/60-0160 0166					
	BO	Varieties at 1994 Isolation of genes whose expressi	on is regulated by the Drosophila mutant tumor suppressor gene late				
EMBL Intl. Conf. on Drosophila Development, Crete, Greece, June 19-25, 1994							
	<u> </u>		·				
EXAMINER			DATE CONSIDERED				

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.